



**Producing cash by end 2014**

**Tabba Tabba : high grade tantalite, 2014**

**Pilgangoora : spodumene and tantalite**

Recommendation  
**BUY; High Risk**  
 Price  
**2.5c**  
 Valuation  
**10c**

- **Tabba Tabba is a small high grade deposit with out-cropping mineralisation. The processing plant is being constructed and PLS is fully funded to ship first product before the end of 2014.**
- **PLS has an agreement to supply Global Advanced Metals with concentrate for 5 years, at a secured price.**
- **Pilgangoora is a much larger deposit with significant spodumene, which is now in demand for ceramics and cook-ware. Beer & Co projects expenditure of about \$23m to bring it into production by mid 2017.**

**Snapshot**

Market Cap	\$14.9m
Shares on Issue	594.1m
Cash on hand (pro-forma, 14 July 2014)	\$5.0m
52 Week High	2.8c
52 Week Low	0.8c
1 month / 6 month VWAP	2.4c / 2.2c

**Tabba Tabba – high grade tantalite**

Tabba Tabba was mined artisanally in the 1950s and earlier. It was previously owned by GAM which was seeking high grade material to feed its plant at Wodgina. PLS has been able to quote a Measured & Indicated Resource estimate based on GAM’s work, of 155kt grading 1330ppm.

**Processing by Nagrom, a world leader**

PLS was invited to become a 50% partner in Tabba Tabba by Nagrom, which is a privately owned metallurgical engineering company that has developed and operated many of the plants used to produce tantalite as well as spodumene, significantly reducing process risk.

**Firm sales contract with Global Advanced Metals (GAM)**

GAM supplies high performance tantalum metallurgical and powder products to the electronics, aerospace, automotive, chemical manufacturing and other industries. Tabba Tabba has executed a 5 year sales agreement at a fixed price, subject to CPI adjustment.

Tabba Tabba is developing a plant to process 120kt/yr of ore. While this is a small volume, the present resources are less than 2 years of operation. There is significant further mineralisation, though we do not know the grade.

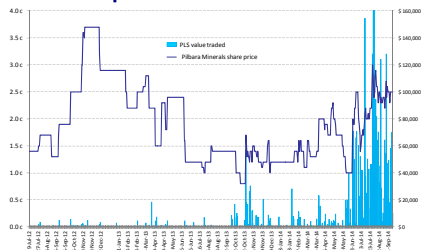
**Beer & Co’s risked valuation is 10c.**

In our analysis, Beer & Co estimates that the current market value of PLS is their 50% share of Tabba Tabba resources.

Beer & Co sees significant value in the Pilgangoora resources as well as the potential for extensions to Tabba Tabba.

Our risked valuation is 10c and Beer & Co initiates research with a BUY, High Risk recommendation.

**PLS Share price v. volume**



Pilbara Minerals acquired a 50% stake in the Tabba Tabba project in October 2013. Its partner is the privately owned metallurgical engineering company Nagrom.

PLS published a feasibility study on Tabba Tabba in February and has since raised equity to bring it into production before the end of 2014.

In May 2014, PLS announced the acquisition of 100% of Pilgangoora, 55km from Tabba Tabba in the the Pilbara region.

**Author :** Pieter Bruinstroop  
[pbruinstroop@beerandco.com.au](mailto:pbruinstroop@beerandco.com.au)

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## PLS : Tantalite and Spodumene

## Tabba Tabba - Tantalite

Pilbara Minerals has a 50% interest in a modest sized, but very high grade, tantalite resource, 70km from Port Hedland, in WA.

Tabba Tabba is in the Pilbara region, about 70km by road from Port Hedland.

On 24 October 2013, PLS announced that it was entering into a Joint Venture for a 50% interest in the Tabba Tabba tantalite project.

On 18 November 2013, PLS announced a maiden Resource estimate, of 213kt of ore, grading 0.122% Ta<sub>2</sub>O<sub>5</sub>, for 572,200lb of contained Ta<sub>2</sub>O<sub>5</sub>, as shown in Figure 1.

**Figure 1 : Tabba Tabba Resource estimate**

		Ta <sub>2</sub> O <sub>5</sub> grade contained Ta <sub>2</sub> O <sub>5</sub>	
Measured	30.1 kt	1,610 ppm	106,960 lb
Indicated	124.4 kt	1,260 ppm	346,040 lb
Inferred	58.4 kt	925 ppm	119,200 lb
<b>TOTAL</b>	<b>212.9 kt</b>	<b>1,220 ppm</b>	<b>572,200 lb</b>

Source : PLS ASX announcement, 18 November 2013, Beer & Co

PLS completed a feasibility study in February 2014.

The resource estimate was based of drilling by the vendor, Global Advanced Metals (GAM), and applied a top cut of 5,500ppm, with a cut-off grade of 400ppm.

The study was to process 162kt of ore, grading 1,290ppm of Ta<sub>2</sub>O<sub>5</sub>.

On 19 February 2014, PLS announced the results of their Feasibility Study on Tabba Tabba. Figure 2 shows the reported Reserve, of 378,000lb of contained Ta<sub>2</sub>O<sub>5</sub> from 133kt of ore grading 1,290ppm. The Reserve estimate also included Niobium.

The pit design from the Reserve included other material so that the feasibility study was based on processing 162kt of ore.

Process at rate of 118kt/yr

**Figure 2 : Tabba Tabba Reserves and mining inventory**

		Ta <sub>2</sub> O <sub>5</sub> grade contained Ta <sub>2</sub> O <sub>5</sub>		Nb <sub>2</sub> O <sub>5</sub> grade contained Nb <sub>2</sub> O <sub>5</sub>	
Proved	32.0 kt	1,420 ppm	100,178 lb	294 ppm	20,741 lb
Probable	101.0 kt	1,249 ppm	278,111 lb	292 ppm	65,019 lb
Total Reserves	133.0 kt	1,290 ppm	378,289 lb	292 ppm	85,760 lb
Pit Design	162.2 kt	1,240 ppm	443,411 lb		

Source : PLS ASX announcement, 19 February 2014, Beer & Co

Capital costs total \$5.6m.

Other details from the feasibility study included :

- Plant capital cost estimated to be \$3.9m, of which \$1.5m had already been spent, plus a further \$1.53m in mine development;
- Processing rate of 118kt/yr, from a single shift, of 10 hours an day, 5 days a week;
- Life of mine (LoM) ore mined is 162kt, plus 1,672kt of waste, for a strip ratio of 10.3;

PLS have a 5 year agreement to supply Ta<sub>2</sub>O<sub>5</sub> concentrate to GAM

- Workforce of 18 and operating costs of \$34.74/lb
- While recovery of 88% had been achieved in testwork, 82% was assumed in the feasibility study; and
- Expected LoM revenue of \$30.2m from production of 365,000lb of Ta<sub>2</sub>O<sub>5</sub> in concentrate.

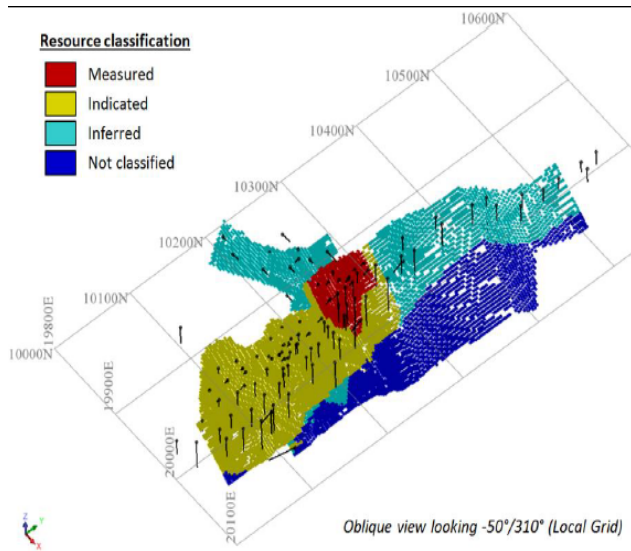
PLS also announced an agreement to supply GAM with Ta<sub>2</sub>O<sub>5</sub> in concentrate for 5 years, compared with the feasibility study mine life of 19 months.

Beer & Co expects that the Tabba Tabba project will have a much longer life than suggested by the feasibility study.

Figure 3 shows the areas of mineralisation included in the Resource estimate. It shows an area that is not classified.

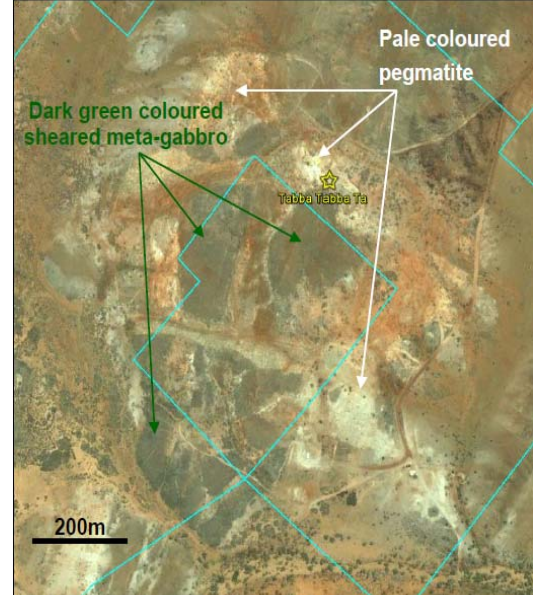
The tantalite included in the Resource estimate has been located by out-cropping pegmatites. Figure 4 shows extensive out-cropping pegmatites, as well as an area that could host pegmatites under cover.

Figure 3 : Resources v. pit design



Source : PLS ASX announcement, 19 February 2014

Figure 4 : extensive out-crops of pegmatite



Source : PLS Resources estimate

In this analysis, Beer & Co has assumed the mining inventory shown in Figure 5.

...partly because of the amount of out-cropping pegmatites

However, we have assumed progressively lower grades over time

Figure 5 : Assumed mining inventory

		Ta <sub>2</sub> O <sub>5</sub> grade	contained Ta <sub>2</sub> O <sub>5</sub>
Inferred	51 kt	1,151 ppm	129k lb
near Tabba Tabba	50 kt	900 ppm	99k lb
Along strike	500 kt	750 ppm	827k lb
Strelly, high grade	500 kt	600 ppm	661k lb
Strelly, balance	900 kt	450 ppm	892k lb
<b>TOTAL</b>	<b>2,000 kt</b>	<b>592 ppm</b>	<b>2,608k lb</b>

Source : Beer & Co estimates

Figure 6 shows the operational outcomes projected by Beer & Co. It shows that we project that volumes processed will rise to compensate for lower grades over time.

**Figure 6 : Beer & Co's projected operational outcomes for Tabba Tabba**

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Ore mined	65 kt	120 kt	120 kt	240 kt	240 kt	240 kt	240 kt	480 kt	418 kt
waste : ore	10 : 1	10 : 1	10 : 1	10 : 1	10 : 1	10 : 1	10 : 1	10 : 1	10 : 1
Waste moved	664 kt	1,236 kt	1,236 kt	2,472 kt	2,472 kt	2,472 kt	2,472 kt	4,944 kt	4,302 kt
Ore Processed	65 kt	120 kt	120 kt	240 kt	240 kt	240 kt	240 kt	480 kt	418 kt
grade	1,240 ppm	1,224 ppm	908 ppm	750 ppm	737 ppm	600 ppm	599 ppm	450 ppm	450 ppm
Recovery	74 %	81 %	82 %	82 %	82 %	82 %	82 %	82 %	82 %
Ta2O5 recovered	130,212 lb	262,907 lb	196,895 lb	325,402 lb	319,554 lb	260,322 lb	259,788 lb	390,482 lb	339,747 lb

Source : Beer & Co estimates

**Beer & Co estimates  
AUD/t costs to fall with  
higher volumes, but  
AUD/lb costs to rise with  
lower grades.**

Figure 7 shows the detail of Beer & Co's projected costs over time. It shows that increasing volume reduces costs in terms of AUD/t of ore, the costs in terms of AUD/lb of product rise due to the lower grades. Figure 8 shows Beer & Co's projected financial outcomes.

**Figure 7 : Beer & Co's projected costs for Tabba Tabba**

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
<u>Mining and Waste</u>	\$ 2.8m	\$ 5.1m	\$ 5.1m	\$ 10.2m	\$ 10.3m	\$ 10.4m	\$ 10.4m	\$ 19.5m	\$ 17.1m
AUD /t material	\$ 3.9/t	\$ 3.7/t	\$ 3.7/t	\$ 3.8/t	\$ 3.8/t	\$ 3.8/t	\$ 3.8/t	\$ 3.6/t	\$ 3.6/t
AUD/t ore	\$ 44/t	\$ 42/t	\$ 42/t	\$ 43/t	\$ 43/t	\$ 43/t	\$ 43/t	\$ 41/t	\$ 41/t
<u>Processing</u>	\$ 1.1m	\$ 2.0m	\$ 2.0m	\$ 3.8m	\$ 3.8m	\$ 3.8m	\$ 3.8m	\$ 7.6m	\$ 6.6m
AUD/t ore	\$ 17/t	\$ 17/t	\$ 17/t	\$ 16/t	\$ 16/t	\$ 16/t	\$ 16/t	\$ 16/t	\$ 16/t
<u>Admin &amp; Obverhead</u>	\$ 1.4m	\$ 1.9m	\$ 1.9m	\$ 3.1m	\$ 3.1m	\$ 3.1m	\$ 3.1m	\$ 4.0m	\$ 3.7m
AUD/t ore	\$ 21/t	\$ 16/t	\$ 16/t	\$ 13/t	\$ 13/t	\$ 13/t	\$ 13/t	\$ 8/t	\$ 9/t
TOTAL	\$ 82/t	\$ 75/t	\$ 75/t	\$ 71/t	\$ 72/t	\$ 72/t	\$ 72/t	\$ 65/t	\$ 66/t
	\$ 40.8 /lb	\$ 34.1 /lb	\$ 45.6 /lb	\$ 52.5 /lb	\$ 53.7 /lb	\$ 66.5 /lb	\$ 66.6 /lb	\$ 79.4 /lb	\$ 80.8 /lb

Source : Beer & Co estimates

**Figure 8 : Beer & Co's projected financial outcomes for Tabba Tabba**

AUD m	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Ta2O5	1,302k lb	2,629k lb	1,969k lb	3,254k lb	3,196k lb	2,603k lb	2,598k lb	3,905k lb	3,397k lb
Net Revenue	10.7	21.7	16.2	26.8	26.4	21.5	21.4	32.2	28.0
Cash Costs	5.3	9.0	9.0	17.1	17.2	17.3	17.3	31.0	27.5
Royalties	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dep'cn & Amort'sn	2.2	3.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
E B I T	<b>3.2</b>	<b>9.0</b>	<b>6.7</b>	<b>9.1</b>	<b>8.6</b>	<b>3.6</b>	<b>3.5</b>	<b>0.6</b>	<b>(0.0)</b>
Project Cap.Ex	2.9								
Sus. Cap. Ex	0.3	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.0
<b>Un-gearred Net Cashflow</b>	<b>1.3</b>	<b>9.4</b>	<b>4.7</b>	<b>6.4</b>	<b>6.0</b>	<b>2.5</b>	<b>2.5</b>	<b>0.4</b>	<b>0.6</b>

Source : Beer & Co estimates

## Pilgangoora - tantalite and spodumene

PLS acquired 100% of Pilgangoora in May 2014.

On 2 April 2014, PLS announced that it had reached agreement to acquire 100% of the Pilgangoora project, 55km S-SW of Tabba Tabba.

Pilgangoora is 55km from Tabba Tabba

On 30 May, PLS announced that it had completed the acquisition of Pilgangoora and also announced an exploration target of 15 – 25 Mt at grades of 1.2% - 1.5% Li<sub>2</sub>O and 200ppm – 300ppm Ta<sub>2</sub>O<sub>5</sub>, as shown in Figure 10. This is in addition to the Inferred Resource announced by PLS on 28 July, shown in Figure 9.

**Figure 9 : Pilgangoora Inferred Resource**

	Ta <sub>2</sub> O <sub>5</sub> grade	Contained Ta <sub>2</sub> O <sub>5</sub>	Li <sub>2</sub> O grade	Contained Li <sub>2</sub> O
10,400 kt	240 ppm	5,503k lb		
8,600 kt			1.01 %	87 kt

Source : PLS ASX Announcement, 17June 2014

**Figure 10 : Pilgangoora Exploration Target**

			Li <sub>2</sub> O grade		Ta <sub>2</sub> O <sub>5</sub> grade				
Northern area	5 Mt	-	10 Mt	1.2 %	-	1.5 %	200 ppm	-	300 ppm
Central & Southern	10 Mt	-	15 Mt	1.2 %	-	1.5 %	200 ppm	-	300 ppm
<b>TOTAL</b>	<b>15 Mt</b>	<b>-</b>	<b>25 Mt</b>	<b>1.2 %</b>	<b>-</b>	<b>1.5 %</b>	<b>200 ppm</b>	<b>-</b>	<b>300 ppm</b>

Source : PLS ASX Announcement, 17 June 2014

Beer & Co estimate \$3m on feasibility plus \$20m in capital to bring Pilgangoora into production.

Beer & Co estimated a capital cost to bring Pilgangoora into production of about \$23m, of which \$3m is spent on feasibility studies and \$20m on project capital.

Our estimate of project capital is based on Tabba Tabba, which costs \$5.6m to bring into production for 120kt/yr. We estimate that this can be lifted to 500kt/yr for capital of about \$3m.

The processing route is similar to that for Tabba Tabba, but the first stage is to float off the spodumene and then gravity separation of the float tails to produce a tantalite concentrate.

As shown in Figure 11, Beer & Co assumes that Pilgangoora will operate at the rate of 1.0Mt/yr to produce 430,000lb/yr of Ta<sub>2</sub>O<sub>5</sub> plus 18M/lb/yr of spodumene.

**Figure 11 : Beer & Co's projections for the operations at Pilgangoora**

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Ore mined	675 kt	1,000 kt	1,000 kt	1,000 kt	1,000 kt	1,000 kt	1,000 kt	1,000 kt	1,000 kt	1,000 kt	1,000 kt
waste : ore	10 : 1	10 : 1	10 : 1	10 : 1	10 : 1	10 : 1	10 : 1	10 : 1	10 : 1	10 : 1	10 : 1
Waste moved	6,750 kt	10,000 kt	10,000 kt	10,000 kt	10,000 kt	10,000 kt	10,000 kt	10,000 kt	10,000 kt	10,000 kt	10,000 kt
Ore Processed	675 kt	1,000 kt	1,000 kt	1,000 kt	1,000 kt	1,000 kt	1,000 kt	1,000 kt	1,000 kt	1,000 kt	1,000 kt
Ta <sub>2</sub> O <sub>5</sub> grade	240 ppm	240 ppm	240 ppm	240 ppm	240 ppm	240 ppm	240 ppm	240 ppm	240 ppm	240 ppm	240 ppm
Recovery	73 %	81 %	82 %	82 %	82 %	82 %	82 %	82 %	82 %	82 %	82 %
Ta <sub>2</sub> O <sub>5</sub> recovered	261k lb	430k lb	434k lb	434k lb	434k lb	434k lb	434k lb	434k lb	434k lb	434k lb	434k lb
Li <sub>2</sub> O grade	1.01 %	1.01 %	1.01 %	1.01 %	1.01 %	1.01 %	1.01 %	1.01 %	1.01 %	1.01 %	1.07 %
Recovery	71 %	79 %	80 %	80 %	80 %	80 %	80 %	80 %	80 %	80 %	80 %
Li <sub>2</sub> O recovered	10.7 M lb	17.7 M lb	17.8 M lb	17.8 M lb	17.8 M lb	17.8 M lb	17.8 M lb	17.8 M lb	17.8 M lb	17.8 M lb	18.9 M lb

Source : Beer & Co estimates

Figure 12 shows the detail of our cost estimates. These are lower than for Tabba Tabba, largely due to the higher volumes. The processing cost is higher due to the float circuit.

**Figure 12 : Beer & Co's estimated costs for Pilgangoora**

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
<b>Waste</b>	\$ 17m	\$ 25m	\$ 26m	\$ 27m	\$ 28m	\$ 28m	\$ 28m	\$ 28m	\$ 28m	\$ 28m	\$ 28m
AUD /t ore	\$ 25/t	\$ 25/t	\$ 26/t	\$ 27/t	\$ 28/t	\$ 28/t	\$ 28/t	\$ 28/t	\$ 28/t	\$ 28/t	\$ 28/t
AUD /t material	\$ 2.5/t	\$ 2.5/t	\$ 2.6/t	\$ 2.7/t	\$ 2.8/t	\$ 2.8/t	\$ 2.8/t	\$ 2.8/t	\$ 2.8/t	\$ 2.8/t	\$ 2.8/t
<b>Ore Mining</b>	\$ 2m	\$ 3m	\$ 3m	\$ 3m	\$ 4m	\$ 4m	\$ 4m	\$ 4m	\$ 4m	\$ 4m	\$ 4m
AUD /t ore	\$ 3.3/t	\$ 3.2/t	\$ 3.3/t	\$ 3.4/t	\$ 3.6/t	\$ 3.7/t	\$ 3.8/t	\$ 3.9/t	\$ 4.0/t	\$ 4.1/t	\$ 4.2/t
<b>Processing</b>	\$ 14m	\$ 19m	\$ 19m	\$ 19m	\$ 19m	\$ 19m	\$ 19m	\$ 19m	\$ 19m	\$ 19m	\$ 19m
AUD /t	\$ 20/t	\$ 19/t	\$ 19/t	\$ 19/t	\$ 19/t	\$ 19/t	\$ 19/t	\$ 19/t	\$ 19/t	\$ 19/t	\$ 19/t
<b>Admin &amp; Obverh</b>	\$ 4m	\$ 5m	\$ 5m	\$ 5m	\$ 5m	\$ 5m	\$ 5m	\$ 5m	\$ 5m	\$ 5m	\$ 5m
AUD /t	\$ 6/t	\$ 5/t	\$ 5/t	\$ 5/t	\$ 5/t	\$ 5/t	\$ 5/t	\$ 5/t	\$ 5/t	\$ 5/t	\$ 5/t
<b>Total Cash Costs</b>	<b>\$ 37m</b>	<b>\$ 52m</b>	<b>\$ 53m</b>	<b>\$ 55m</b>	<b>\$ 56m</b>	<b>\$ 56m</b>	<b>\$ 56m</b>	<b>\$ 56m</b>	<b>\$ 56m</b>	<b>\$ 56m</b>	<b>\$ 56m</b>
AUD /t ore	\$ 55/t	\$ 52/t	\$ 53/t	\$ 55/t	\$ 56/t	\$ 56/t	\$ 56/t	\$ 56/t	\$ 56/t	\$ 56/t	\$ 56/t

Source : Beer & Co estimates

Figure 13 shows the detail of our price assumptions and the financial outcomes.

**Figure 13 : Beer & Co's projected financial outcomes for Pilgangoora**

AUD m	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2026-27	2027-28	2028-29
Tantalite	\$ 82.5 /lb	\$ 82.5 /lb	\$ 82.5 /lb	\$ 82.5 /lb	\$ 82.5 /lb	\$ 82.5 /lb	\$ 82.5 /lb	\$ 82.5 /lb	\$ 82.5 /lb	\$ 82.5 /lb
Spodumene	\$ 3.0 /lb	\$ 3.0 /lb	\$ 3.0 /lb	\$ 3.0 /lb	\$ 3.0 /lb	\$ 3.0 /lb	\$ 3.0 /lb	\$ 3.0 /lb	\$ 3.0 /lb	\$ 3.0 /lb
Ta2O5	0k lb	0k lb	261k lb	430k lb	434k lb	434k lb	434k lb	434k lb	434k lb	434k lb
Li2O	0.0 M lb	0.0 M lb	10.7 M lb	17.7 M lb	17.8 M lb	17.8 M lb	17.8 M lb	17.8 M lb	18.9 M lb	22.0 M lb
Revenue	0.0	0.0	53.7	88.5	89.3	89.3	89.3	89.3	92.5	101.9
Cash Costs	0.0	0.0	36.8	52.2	53.4	54.7	55.5	56.1	56.2	56.3
Royalties	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dep'cn & Amort'sn	0.0	0.0	1.6	3.4	3.4	3.4	3.4	3.4	2.8	1.0
E B I T	0.0	0.0	15.2	32.9	32.5	31.2	30.4	29.8	33.5	44.6
Tax Expense	0.0	0.0	4.3	9.6	9.6	9.3	9.1	8.9	10.0	13.4
N P A T	0.0	0.0	10.0	22.5	22.4	21.6	21.2	20.9	23.4	31.2
Feasibility / permitting	(2.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project Cap.Ex	0.0	(19.3)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sus Cap. Ex	0.0	0.0	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)
<b>Un-gearred Net Cashflow</b>	<b>(2.0)</b>	<b>(19.3)</b>	<b>10.7</b>	<b>24.9</b>	<b>24.8</b>	<b>24.1</b>	<b>23.6</b>	<b>23.3</b>	<b>25.2</b>	<b>31.2</b>

Source : Beer & Co estimates

**PLS is fully funded to begin production from Tabba Tabba by December 2014**

**Beer & Co estimate that PLS may not need to raise further equity to bring Pilgangoora into production**

## Pilbara Minerals - Valuation

Figure 14 shows Beer & Co's projected outcomes for Pilbara Minerals, from :

- Its 50% share of Tabba Tabba; plus
- Its 100% share of Pilgangoora.

As shown in Figure 14, Beer & Co projects that PLS does not need to raise further equity; PLS is currently funded to get into production from Tabba Tabba, having raised \$5.75m in equity since 30 June 2013, plus issued \$1.5m in convertible notes, which we assume in our analysis are converted into equity.

Beer & Co further assumes that 91.8m options on issue, exercisable at 3.0c by March 2017 are in fact exercised.

**Figure 14 : Beer & Co's projected financial outcomes for PLS**

AUD m	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
TazOs sold	65k lb	131k lb	98k lb	423k lb	590k lb	564k lb	564k lb	629k lb	604k lb	434k lb	434k lb	434k lb
LizO sold	0.0 M lb	0.0 M lb	0.0 M lb	10.7 M lb	17.7 M lb	17.8 M lb	17.8 M lb	17.8 M lb	17.8 M lb	17.8 M lb	17.8 M lb	17.8 M lb
TazOs revenue	5.4	10.8	8.1	35	49	47	47	52	36	36	36	36
LizO revenue	0.0	0.0	0.0	32	53	54	54	54	54	54	54	54
Total Revenue	5.6	11.4	8.6	68	103	101	101	106	104	90	90	89
Cost of Goods Sold	(2.7)	(4.5)	(4.5)	(45)	(61)	(62)	(63)	(71)	(69)	(56)	(56)	(56)
Royalties	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exploration Expense	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Corporate Costs	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)
Dep'cn & Amort'sn	(2.9)	(4.5)	(0.3)	(1.9)	(3.7)	(3.7)	(3.7)	(3.7)	(3.7)	(3.4)	(3.4)	(3.4)
E B I T	(0.9)	1.4	2.8	20	37	34	33	30	30	29	29	29
Interest Expense	0.0	0.0	0.0	(0.9)	(0.7)	(0.5)	(0.3)	(0.1)	(0.0)	(0.0)	(0.0)	(0.1)
Tax Expense	0.0	(0.4)	(0.9)	(5.6)	(10.9)	(10.1)	(9.8)	(9.1)	(8.9)	(8.8)	(8.8)	(8.7)
NPAT	(0.9)	1.0	2.0	13.1	25.5	23.6	22.8	21.2	20.8	20.6	20.4	20.3
Ordinary shares - year	594.1m	664.1m	755.8m	755.8m	755.8m	755.8m	755.8m	755.8m	755.8m	755.8m	755.8m	755.8m
Earnings per Share	(0.1c)	0.2 c	0.3 c	1.7 c	3.4 c	3.1 c	3.0 c	2.8 c	2.8 c	2.7 c	2.7 c	2.7 c

Source : Beer &amp; Co estimates

**Beer & Co's risked base case valuation of PLS is 10c/share.**

Figure 15 shows the detail of Beer & Co's base case valuation of PLS of 10c/share. It also shows :

- Beer & Co's valuation of PLS, based purely on the Tabba Tabba feasibility study, is less than 1.0c;
- Adding the extensions to Tabba Tabba adds a further 0.5c to our valuation;
- The bulk of the value in PLS is in the Pilgangoora project, but Tabba Tabba is a very necessary first step, operationally and financially, to be able to execute Pilgangoora.

**Figure 15 : Beer & Co's base case value of PLS is 10c/share**

discount rate = 12.0 %	risk :	30-Jun-14		15-Sep-14
		100%	Product	per share
	Tabba Tabba Resources	\$ 5m	\$ 4m	0.5 c
	Tabba Tabba Extensions	\$ 5m	\$ 3m	0.4 c
	Strelly	\$ 2m	\$ 1m	0.1 c
	fanking credits	\$ 1m	\$ 1m	0.1 c
	Pilgangoora Resources	\$ 80m	\$ 32m	4 c
	Pilgangoora Extension	\$ 58m	\$ 12m	2 c
	fanking credits	\$ 56m	\$ 12m	2 c
	Corporate	(\$6m)	(\$6m)	(0.7c)
	Cash / debt	(\$0m)	(\$0m)	(0.1c)
	cash to be raised	\$ 7m	\$ 7m	0.9 c
	<b>TOTAL</b>	<b>\$ 207m</b>	<b>\$ 65m</b>	<b>9 c</b>
	Shares on issue	330.3m	FPO shares	91.8m options
		263.8m	issued 2014	91.8m op. ex'd
		70.0m	CNs converted	

Source : Beer &amp; Co estimates

**There is significant upside potential to our valuation as the projects are progressively de-risked.**

**Beer & Co initiates research on PLS with a BUY recommendation**

## Conclusions

Beer & Co's risked valuation of PLS is 10c/share, a multiple of the current share price.

We initiate research with a BUY, High Risk, recommendation.



Beer & Co Research		September 2014						
Pilbara Minerals (PLS.ASX)								
Year ended June		2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
<b>Section 1 - P&amp;L</b>								
Sales revenue	\$Am	0	5	11	8	67	102	100
Interest revenue	\$Am	0	0	1	1	1	1	1
Other revenue	\$Am	0	0	0	0	0	0	0
<b>Total Revenue</b>	\$Am	<b>0</b>	<b>6</b>	<b>11</b>	<b>9</b>	<b>68</b>	<b>103</b>	<b>101</b>
Cost of Goods Sold	\$Am	0	(3)	(4)	(4)	(45)	(61)	(62)
Royalties	\$Am	0	0	0	0	0	0	0
Exploration Expense	\$Am	0	0	0	0	0	0	0
Corporate Costs	\$Am	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Other Operating Expenses	\$Am	0	0	0	0	0	0	0
<b>Total Operating Expenses</b>	\$Am	<b>(1)</b>	<b>(4)</b>	<b>(5)</b>	<b>(5)</b>	<b>(46)</b>	<b>(62)</b>	<b>(63)</b>
<b>EBITDA</b>	\$Am	<b>(1)</b>	<b>2</b>	<b>6</b>	<b>3</b>	<b>22</b>	<b>41</b>	<b>38</b>
Dep'n & Amort'n	\$Am	0	(3)	(4)	(0)	(2)	(4)	(4)
<b>EBIT</b>	\$Am	<b>(1)</b>	<b>(1)</b>	<b>1</b>	<b>3</b>	<b>20</b>	<b>37</b>	<b>34</b>
Interest Expense	\$Am	0	0	0	0	(1)	(1)	(1)
Other	\$Am	0	0	0	0	0	0	0
<b>Pre-Tax Profit</b>	\$Am	<b>(1)</b>	<b>(1)</b>	<b>1</b>	<b>3</b>	<b>19</b>	<b>36</b>	<b>34</b>
Tax Expense	\$Am	0	0	(0)	(1)	(6)	(11)	(10)
<b>NPAT</b>	\$Am	<b>(1)</b>	<b>(1)</b>	<b>1</b>	<b>2</b>	<b>13</b>	<b>26</b>	<b>24</b>
<b>Reported NPAT</b>	\$Am	<b>(1)</b>	<b>(1)</b>	<b>1</b>	<b>2</b>	<b>13</b>	<b>26</b>	<b>24</b>
<b>Section 2 - Key Data</b>								
Ordinary shares - year end	m	330.3	594	678	769	769	769	769
Fully diluted shares on issue	m	492.0	756	769	769	769	769	769
Weighted # shares	m	291.5	594	650	723	769	769	769
Earnings per Share		(0.3c)	(0.1c)	0.2 c	0.3 c	1.7 c	3.3 c	3.1 c
Dividends Per Share		0.0 c	0.0 c	0.0 c	0.0 c	0.3 c	2.4 c	2.6 c
<b>Section 3 - Balance Sheet</b>								
Cash	\$Am	1	4	10	6	24	32	24
Receivables	\$Am	0	1	1	1	11	13	13
Other	\$Am	0	0	0	0	0	0	0
<b>CURRENT ASSETS</b>	\$Am	<b>1</b>	<b>6</b>	<b>11</b>	<b>7</b>	<b>35</b>	<b>44</b>	<b>36</b>
Receivables	\$Am	0	0	0	0	0	0	0
P, P & E	\$Am	2	3	1	20	20	18	16
Mining Properties / Exploration	\$Am	4	4	3	3	3	3	2
Other	\$Am	0	0	0	0	0	0	0
<b>NON-CURRENT ASSETS</b>	\$Am	<b>7</b>	<b>6</b>	<b>4</b>	<b>23</b>	<b>23</b>	<b>20</b>	<b>18</b>
<b>TOTAL ASSETS</b>	\$Am	<b>8</b>	<b>12</b>	<b>15</b>	<b>30</b>	<b>58</b>	<b>65</b>	<b>54</b>
Payables	\$Am	0	1	1	1	6	6	6
Debt	\$Am	0	2	0	1	3	3	2
Other	\$Am	0	0	0	0	0	0	0
<b>CURRENT LIABILITIES</b>	\$Am	<b>0</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>8</b>	<b>9</b>	<b>9</b>
Long Term Debt	\$Am	2	0	10	9	6	3	1
Deferred Tax Liability	\$Am	0	0	0	0	0	0	0
Other	\$Am	0	0	0	0	0	0	0
Provisions	\$Am	0	0	0	0	0	0	0
<b>NON-CURRENT LIABILITIES</b>	\$Am	<b>2</b>	<b>0</b>	<b>10</b>	<b>9</b>	<b>6</b>	<b>3</b>	<b>1</b>
<b>TOTAL LIABILITIES</b>	\$Am	<b>2</b>	<b>2</b>	<b>10</b>	<b>10</b>	<b>15</b>	<b>12</b>	<b>10</b>
<b>NET ASSETS</b>	\$Am	<b>6</b>	<b>10</b>	<b>5</b>	<b>20</b>	<b>43</b>	<b>52</b>	<b>44</b>
Accumulated Profit (Loss)	\$Am	(12)	(13)	(12)	(10)	4	19	22
Reserves	\$Am	1	2	(7)	3	13	7	(4)
Contributed Equity	\$Am	17	20	24	27	27	27	27
Minority Interest	\$Am	6	10	5	20	43	52	44
<b>Total Equity</b>	\$Am	<b>6</b>	<b>10</b>	<b>5</b>	<b>20</b>	<b>43</b>	<b>52</b>	<b>44</b>
<b>Section 4 - Cashflow</b>								
Net Cashflow from operations	\$Am	(3)	(1)	3	(7)	18	27	22
Net Interest Paid	\$Am	0	0	1	1	(0)	0	0
Taxes Paid	\$Am	0	0	0	0	(0)	(10)	(11)
Change in Working Capital	\$Am	(0)	(5)	(6)	4	(34)	(9)	8
<b>OPERATING CASHFLOW</b>	\$Am	<b>(4)</b>	<b>(6)</b>	<b>(2)</b>	<b>(2)</b>	<b>(17)</b>	<b>8</b>	<b>20</b>
Exploration Expenditures	\$Am	0	1	2	0	0	0	0
Maintenance Capex	\$Am	0	0	0	0	1	1	1
Expansion Capex	\$Am	2	1	0	19	0	0	0
<b>PPE Acquisitions (Total Capex)</b>	\$Am	<b>2</b>	<b>3</b>	<b>2</b>	<b>20</b>	<b>1</b>	<b>1</b>	<b>1</b>
PPE Divestments	\$Am	0	0	0	0	0	0	0
<b>INVESTING CASHFLOW</b>	\$Am	<b>2</b>	<b>3</b>	<b>2</b>	<b>20</b>	<b>1</b>	<b>1</b>	<b>1</b>
Change in Equity	\$Am	2	4	2	3	0	0	0
Dividends Paid	\$Am	0	0	0	0	(10)	(20)	
Change in Debt	\$Am	2	0	8	0	(1)	(3)	(3)
<b>FINANCING CASHFLOW</b>	\$Am	<b>3</b>	<b>4</b>	<b>10</b>	<b>3</b>	<b>(1)</b>	<b>(13)</b>	<b>(23)</b>
<b>Free Cashflow</b>	\$Am	<b>(2)</b>	<b>(3)</b>	<b>0</b>	<b>17</b>	<b>(15)</b>	<b>(1)</b>	<b>1</b>
<b>Net Cashflow</b>	\$Am	<b>2</b>	<b>1</b>	<b>10</b>	<b>20</b>	<b>(16)</b>	<b>(4)</b>	<b>(2)</b>
<b>Commodity price assumptions</b>								
Year ended June		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	
AUD/USD		0.890	0.855	0.850	0.850	0.850	0.850	0.850
Tantalite	US\$ / lb	83	83	83	83	83	83	83
Spodumene	US\$ / lb	3.0	3.0	3.0	3.0	3.0	3.0	3.0
<b>Mine Production, PLS share, '000 pounds</b>								
Tabba Tabba Ta2O5		65	131	98	163	160	130	
Pilgangoora Ta2O5		0	0	0	261	430	434	
Pilgangoora Spodumene		0	0	0	10,726	17,681	17,849	
<b>Resources, Reserves and assumed mining inventory</b>								
<b>Tabba Tabba Ore Reserves</b>								
			Ta2O5 grade	contained Ta2O5				
Proved	32 kt		1,420 ppm	100k lb				
Probable	101 kt		1,249 ppm	278k lb				
Total Reserves	133 kt		1,290 ppm	378k lb				
Pit Design	162 kt		1,240 ppm	443k lb				
<b>Tabba Tabba Mineral Resources</b>								
			Ta2O5 grade	contained Ta2O5				
Measured	30 kt		1,610 ppm	107k lb				
Indicated	124 kt		1,260 ppm	346k lb				
Inferred	58 kt		925 ppm	119k lb				
TOTAL	213 kt		1,220 ppm	572k lb				
<b>Beer &amp; Co estimated mining inventory, Tabba Tabba</b>								
			Ta2O5 grade	contained Ta2O5				
Pit Design	162 kt		1,240 ppm	443k lb				
Resources	51 kt		1,151 ppm	129k lb				
near Tabba Tabba pit	50 kt		900 ppm	99k lb				
Along strike	500 kt		750 ppm	827k lb				
Strelly, high grade	500 kt		600 ppm	661k lb				
Strelly, balance	900 kt		450 ppm	892k lb				
Pit Design	2,162 kt		640 ppm	3,051k lb				
<b>Pilgangoora Mineral Resources</b>								
			Ta2O5 grade	contained		Li2O grade	Contained Li2O	
Inferred Resource	10,400 kt		240 ppm	5,503k lb				
Inferred Resource	8,600 kt					1.01 %	87 kt	
<b>Beer &amp; Co estimated mining inventory, Pilgangoora</b>								
			Ta2O5 grade	ined Ta2O5		Li2O grade	ained Li2O	
			25,400 kt	240 ppm		13,439k lb	1.17 % 297 kt	
<b>Asset based Valuation</b>								
discount rate = 12.0 %		30 June 2014			12-Sep-14			
		risking	100% Product	per share				
Tabba Tabba Resources	\$ 5m	\$ 4m	0.5 c	0.6 c				
Tabba Tabba Extensions	\$ 5m	\$ 3m	0.4 c	0.4 c				
Strelly	\$ 2m	\$ 1m	0.1 c	0.1 c				
fanking credits	\$ 1m	\$ 1m	0.1 c	0.1 c				
Pilgangoora Resources	\$ 80m	\$ 32m	4.2 c	4.8 c				
Pilgangoora Extension	\$ 58m	\$ 12m	1.5 c	1.9 c				
fanking credits	\$ 56m	\$ 12m	1.6 c	1.9 c				
Corporate	(\$6m)	(\$6m)	(0.7c)	(0.7c)				
Cash / debt	(\$0m)	(\$0m)	(0.1c)	(0.1c)				
cash to be raised	\$ 7m	\$ 7m	0.9 c	0.8 c				
<b>TOTAL</b>	<b>\$ 208m</b>	<b>\$ 65m</b>	<b>8 c</b>	<b>10 c</b>				
Shares on issue	330.3m	FPO shares	91.8m options					
	263.8m	issued 201-	91.8m op. ex'd					
	69.9m	CNs converted						
	13.6m	new equity						
<b>Financial Ratios</b>								
Year ended June		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	
Revenue	\$Am	6	11	9	68	103	101	
EBITDA	\$Am	(1)	2	6	3	22	41	
EBIT	\$Am	(1)	(1)	1	3	20	37	
NPAT (reported)	\$Am	(1)	(1)	1	2	13	26	
Adjusted EPS (cps)		(0.3c)	(0.1c)	0.2 c	0.3 c	1.7 c	3.3 c	
EPS Growth (%)			56 %	202 %	91 %	494 %	95 %	
DPS (c)		0.0 c	0.0 c	0.0 c	0.3 c	2.4 c	2.6 c	
Dividend Yield (%)		0 %	0 %	0 %	12 %	95 %	103 %	
PE adj. (x)	x	(6)	(17)	17	9	1	1	
EV / EBITDA (x)	x	(7)	6	3	7	0	(0)	
EV / EBIT (x)	x	(7)	(14)	12	8	0	(0)	
Gearing (%)		13 %	63 %	32 %	15 %	10 %	6 %	
Return on Assets		(7%)	9 %	10 %	34 %	58 %	63 %	
Return on Equity		(9%)	19 %	10 %	30 %	49 %	53 %	
EBITDA Margin (%)		n/a	37 %	55 %	39 %	32 %	40 %	
Interest Cover (x)	x	n/a	n/a	n/a	n/a	22.1	50.3	
<b>Shareholdings</b>								
Neil Biddle		34.438m	5.8 %					
Vaughan Blank		33.333m	5.6 %					



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The analyst responsible for this research report certifies that all of the views expressed reflect his personal views about the securities and the issuer.

Report prepared by : Pieter Bruinstroop [pbruinstroop@beerandco.com.au](mailto:pbruinstroop@beerandco.com.au)

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BEER & CO PTY LTD ABN 88 158 837 186,  
AUTHORISED REPRESENTATIVE MELBOURNE VENTURE SECURITIES PTY LTD AFSL No. 224 313

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Melbourne Office:  
Suite 4, Level 2, Bank House  
11 - 19 Bank Place,  
Melbourne, Vic, Australia 3000  
Telephone: (+613) 9600 3599  
Facsimile: (+613) 9602 2291  
Email: [info@beerandco.com.au](mailto:info@beerandco.com.au)  
Web: [www.beerandco.com.au](http://www.beerandco.com.au)